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9 **PHOENIX SOLUTIONS, INC.**

10 **UNITED STATES DISTRICT COURT**
11 **NORTHERN DISTRICT OF CALIFORNIA**
12 **SAN FRANCISCO DIVISION**

13 PHOENIX SOLUTIONS, INC., a
14 California corporation,

15 Plaintiff,

16 v.

17 WELLS FARGO BANK, N.A., a
18 Delaware corporation, and
19 WELLS FARGO FUNDS
20 MANAGEMENT, LLC, a
21 Delaware limited liability company

22 Defendants.

Case No. CV08-863MHP

**SECOND AMENDED COMPLAINT
FOR DAMAGES AND INJUNCTIVE
RELIEF FOR INFRINGEMENT OF
U.S. PATENT NOS. 6,633,846,
6,665,640, 7,050,977 AND 7,277,854
UNDER 35 U.S.C. § 271 AND
DEMAND FOR JURY TRIAL
PURSUANT TO FED. R. CIV.
PROC., RULE 38**

23 Plaintiff, Phoenix Solutions, Inc. (“Phoenix” or “Plaintiff”), hereby
24 complains against Defendants, Wells Fargo Bank, N.A. (“Wells Fargo Bank”) and
25 Wells Fargo Funds Management, LLC (“Wells Fargo Funds Management”)
26 (collectively “Defendants” or “Wells Fargo”), as follows:
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1 1. This is a civil action for patent infringement arising under the patent
2 laws of the United States, 35 U.S.C. § 271 *et seq.*

3 **I. THE PARTIES**

4 2. Plaintiff is a corporation organized and existing under the laws of the
5 State of California, with a place of business at 634 Georgia Avenue, Palo Alto,
6 California, 94306.

7 3. Upon information and belief, Wells Fargo Bank is a corporation
8 organized and existing under the laws of the State of Delaware with a place of
9 business at 420 Montgomery Street, San Francisco, California, 94163.

10 4. Upon information and belief, Wells Fargo Funds Management is a
11 limited liability company organized and existing under the laws of the State of
12 Delaware with a place of business at 525 Market Street, A0103-121, San Francisco,
13 California, 94105.

14 **II. FACTUAL BACKGROUND**

15 5. Plaintiff is the owner by assignment of U.S. Patent Nos. 6,633,846,
16 6,665,640, 7,050,977, and 7,277,854 (hereinafter “Patents in Suit”) directed to
17 “speech recognition software”.

18 6. Plaintiff Phoenix developed the next generation of speech recognition
19 systems that give users the ability to have a verbal conversation with a computer
20 about a subject on which the computer has been programmed to process and
21 generate intelligent responses. One of the first applications of this new technology
22 was its use in telephone customer service lines where the customer calls a computer
23 and a “virtual customer service agent” answers the line and interacts with a caller
24 using “natural speech” akin to a live person.

25 7. Phoenix encompasses the life work of a pioneer in the field of
26 computer-based speech recognition, Dr. Ian Bennett. Originally from Jamaica, Dr.
27 Bennett graduated with honors from the University of British Columbia and went
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1 on to receive his Master's and Doctorate degrees in electrical engineering from
2 Stanford University. While at Stanford, Dr. Bennett developed the first practical
3 analog processor for speech compression. After graduation he held technical
4 engineering positions with several high technology companies and contributed to
5 device and product development. As a consultant to the Variable Speech Corp. of
6 Tokyo, Japan, he contributed to the development of an analog speech compression
7 VLSI speech processor used for audio compression in consumer speech recorders.
8 In 1994, Dr. Bennett began the development of a natural language query system
9 (NLQS). Subsequently, he founded Phoenix Solutions, where he guided the
10 development of algorithms for statistics- and semantics-based signal processing of
11 speech that allow a computer to take in natural speech questions and return answers
12 that also sound like natural speech. Dr. Bennett developed various applications for
13 his technology, including interactive conversational systems and interactive guides,
14 intelligent tutoring systems and form-filling systems. Dr. Bennett is currently at the
15 National Science Foundation serving as a Program Director within the Directorate
16 of Engineering, Division of Industrial Innovation & Partnerships.

17 8. Wells Fargo is a financial services company that provides banking,
18 insurance, investment, mortgage loan, and consumer finance services. In
19 connection with its electronic services, Wells Fargo (and/or others on its behalf)
20 established and operates a number of customer support lines, which can be reached
21 for example at (800) 642-4720 and upon information and belief, other toll-free
22 phone numbers. The customer support lines employ a natural language interactive
23 voice response (IVR) system that includes a virtual agent (hereinafter
24 interchangeably referred to as "IVR system").

25 9. Plaintiff's natural language IVR system is superior to conventional
26 touch-tone systems because the caller can simply talk to the system using natural
27 language. In contrast, touch-tone IVR systems require the caller to select from a
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1 series of choices using a more limited telephone keypad. IVR touch tone systems
2 are also less efficient since they require callers to listen to an entire menu of choices
3 and wade through a series of menus before providing a response to the caller.
4 Consumers hang up at a greater rate in frustration when they become lost in the
5 maze of menus.

6 10. The alternative to touch tone menu systems is to employ live
7 operators. When compared to live operators, Plaintiff's IVR system is much more
8 cost effective. Based upon industry data, it is estimated that Wells Fargo's use of
9 its current IVR system has allowed it to save 93% of the cost it previously incurred
10 in providing its customer support line and Wells Fargo's customer satisfaction has
11 increased by 30%.

12 11. Upon information and belief, Wells Fargo operates its IVR system
13 using a combination of telephony hardware and computer server hardware that is
14 specifically adapted by Wells Fargo (and/or others on its behalf) to respond to
15 spoken questions from callers concerning the Wells Fargo's business. Such
16 hardware uses supporting software that includes speech recognition and natural
17 language engines used to understand the spoken questions from callers.

18 12. Upon information and belief, the speech recognition engine used by
19 Wells Fargo is distributed, so that some of the speech-processing operations for
20 understanding callers are performed on a client computing system (such as
21 telephony platform or other hardware) while other speech processing operations are
22 performed on a separate server computing system. Upon information and belief,
23 Wells Fargo (and/or others on its behalf) configure such computing systems to
24 customize what speech processing operations will take place on such respective
25 hardware systems to maximize certain characteristics of the system, and to regulate
26 how speech data from the callers is transferred between such systems.

1 13. When customers place calls to Wells Fargo's IVR system, they can
2 speak in a conversational style as if they were speaking to a real person. Wells
3 Fargo's interactive virtual agent responds to the caller's questions in real-time by
4 providing answers in natural speech. The virtual agent has been taught natural
5 language dialogues based on information concerning Wells Fargo's products
6 provided by Wells Fargo and incorporated into the software. In this manner, the
7 virtual agent can understand questions posed by customers concerning Wells
8 Fargo's products, and give relevant answers.

9 14. Wells Fargo's IVR system uses a speech recognition engine to break
10 down the customer's questions into specific words understood by the IVR system.
11 For example, the speech recognition engine could determine that the user has said
12 his or her account number. Wells Fargo controls precisely what specific words its
13 IVR system will understand as part of its vocabulary by configuring (and/or having
14 others configure on its behalf) certain aspects of such client computing system
15 and/or server computing system.

16 15. Wells Fargo's IVR system employs a natural language engine to
17 understand the meaning of the specific words spoken by its customers. The IVR
18 system, by understanding the meaning and context of specific words, may
19 determine that the customer is asking about a service related problem. Wells Fargo
20 controls precisely what interpretation the IVR system should give to various words
21 spoken by its customers by configuring (and/or having others configure on its
22 behalf) certain aspects of the client computing system and/or server computing
23 system.

24 16. Based on determining the most likely meaning of the customer's
25 specific question, the interactive virtual agent responds with a specific answer. The
26 answer may take the form of an audible response from the agent, or it may take the
27 form of the IVR system routing the caller to a live person working within the
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1 appropriate department (such as the service department in the example above). In
2 all instances, Wells Fargo alone controls precisely what responses and actions
3 virtual agent takes, and has configured (and/or has had others configure on its
4 behalf) certain aspects of such client computing system and/or server computing
5 system to provide such desired responses or actions.

6 17. Upon information and belief, Wells Fargo also configured and
7 controlled (and/or has had others configure and/or control on its behalf) other
8 aspects of the virtual agent's overall behavior, including among other things, the
9 gender, apparent age, speech rate, prosody, style and rate of response. These
10 parameters are selected and controlled by Wells Fargo to increase customer
11 satisfaction with the customer support line.

12 18. Upon information and belief, Wells Fargo (and/or others on its behalf)
13 designed, customized and selected the personality exhibited by the virtual agent as
14 well. This electronic persona was specifically selected to be appealing and
15 attractive to Wells Fargo's customers and to maximize utilization of the IVR
16 system by such customers.

17 19. Upon information and belief, the information used by Wells Fargo's
18 IVR system (including e.g., the grammar used, specific questions to which it can
19 respond, the interpretation of questions, and the answers to be given to customers)
20 were derived by Wells Fargo (and/or others on its behalf) from collecting and
21 studying data from thousands of actual calls made to Wells Fargo's customer
22 support line. Based on this, Plaintiff believes that Wells Fargo (and/or others on its
23 behalf) has trained the IVR system with Wells Fargo's call center data that is
24 unique to Wells Fargo's business. As a result, the IVR system is tailored to
25 respond with appropriate answers to questions posed by Wells Fargo's customer
26 base.

1 20. Accordingly, Wells Fargo's IVR system has been customized with
2 customer content data that is not available from a third party. This Wells Fargo-
3 specific content data is critically important to the behavior and operation of Wells
4 Fargo's IVR system, since without it the IVR system would not know what words
5 to recognize from a caller's utterance, how to determine the meaning of such words,
6 and/or what answer to give to the caller as a response.

7 21. Wells Fargo's IVR system, as noted above, is a combination of
8 components, including at least some hardware, software and content which it
9 obtained from third parties (third party components). Nonetheless, and on
10 information and belief, Wells Fargo is responsible for and has caused such third
11 party components to be combined, adapted and configured (including with such
12 Wells Fargo-specific content) in accordance with specific performance, content
13 requirements and scenarios of the Wells Fargo's customer support operations.

14 22. Consequently, and on further information and belief, the current
15 structure and operation of Wells Fargo's IVR system is a result of content
16 contributions, performance specifications and operational specifications provided
17 by Wells Fargo and configuration/modification of third party components made by
18 Wells Fargo (and/or others on its behalf). Such third party components – as
19 currently available from such third parties - by themselves would not be sufficient
20 to implement Wells Fargo's IVR system without Wells Fargo's cooperation,
21 contributions and actions, including Wells Fargo's provision of the Wells Fargo-
22 specific content data.

23 23. On or about June 2, 2006, Plaintiff sent a letter to Wells Fargo, stating
24 that the IVR system is covered by one or more claims of the Patents in Suit. In that
25 letter, Plaintiff included a number of supporting materials to explain its position on
26 the Patents, and further extended an offer to license the Patents in Suit to Wells
27 Fargo. On or about June 27, 2006, Wells Fargo responded, informing Plaintiff that
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1 it needed to investigate the matter and requested identification of the patent claims
2 that may be infringed. On or about June 29, 2006, Plaintiff responded to Wells
3 Fargo, stating that Wells Fargo may have overlooked the CD enclosed with the
4 original letter which has extensive representative claim charts pointing out
5 particularly which claims Plaintiff believes are pertinent to Wells Fargo's system
6 and why. Some many months later on October 18, 2007, and having not heard
7 from Wells Fargo, Plaintiff sent another letter to Wells Fargo to again negotiate a
8 license and requested a response by no later than December 14, 2007. Wells Fargo
9 failed to respond in any meaningful way to the licensing offer or the charge of
10 infringement, necessitating the filing of this action.

11 **III. JURISDICTION AND VENUE**

12 24. This Court has original subject matter jurisdiction over Plaintiff's
13 patent infringement claim pursuant to 28 U.S.C. §1338(a).

14 25. This Court has personal jurisdiction over Wells Fargo because Wells
15 Fargo's corporate headquarters are located in San Francisco, CA.

16 26. Venue properly lies in the Northern District of California pursuant to
17 28 U.S.C. §1391 and §1400, because the acts complained of herein have been
18 committed and are being committed in this Judicial District and Wells Fargo is
19 subject to personal jurisdiction within the District.

20 **IV. FIRST COUNT FOR INFRINGEMENT**

21 **OF UNITED STATES PATENT NO. 6,633,846**

22 27. Plaintiff hereby incorporates by reference the allegations contained in
23 paragraphs 1 through 26.

24 28. Plaintiff is the assignee of the U.S. Patent No. 6,633,846 ("the '846
25 Patent"), attached hereto as Exhibit 1, entitled "Distributed Real Time Speech
26 Recognition System". Plaintiff owns and has standing and capacity to sue and
27 recover damages for infringement under the '846 Patent.
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1 29. Wells Fargo has violated Plaintiff's patent rights by operating an IVR
2 system covered by at least one claim of the '846 Patent. Wells Fargo's infringing
3 IVR system has not been manufactured or authorized in any manner by the
4 Plaintiff.

5 30. As a legal consequence of Wells Fargo's infringement, Plaintiff is
6 entitled to compensation for no less than a reasonable royalty, as well as pre-
7 judgment interest and a preliminary and permanent injunction. In the event that the
8 Court does not exercise its equitable discretion to award a permanent injunction,
9 then Plaintiff is entitled to a judgment that includes a sum equal to the total
10 projected value of a compulsory license for the life of the patent at a royalty rate to
11 be determined by a jury, discounted to present value, to compensate Plaintiff for
12 future infringement.

13 31. The infringement of the '846 Patent has been willful in that Wells
14 Fargo is fully aware of Plaintiff's rights, yet has continued to use the infringing
15 IVR system in violation of the patent laws without a good faith basis for believing
16 it does not infringe or the patent is invalid. This intentional refusal to respect
17 Plaintiff's patent rights constitutes willful infringement under 35 U.S.C. §§ 284 and
18 285, thereby entitling Plaintiff to treble damages and attorneys' fees.

19 **V. SECOND COUNT FOR INFRINGEMENT OF**
20 **UNITED STATES PATENT NO. 6,665,640**

21 32. Plaintiff hereby incorporates by reference the allegations contained in
22 paragraphs 1 through 26.

23 33. Plaintiff is the assignee of the U.S. Patent No. 6,665,640 ("the '640
24 Patent"), attached hereto as Exhibit 2, entitled "Interactive Speech Based
25 Learning/Training System Formulating Search Queries Based on Natural Language
26 Parsing of Recognized User Queries". Plaintiff owns and has standing and capacity
27 to sue and recover damages for infringement under the '640 Patent.
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34. Wells Fargo has violated Plaintiff's patent rights by operating an IVR system covered by at least one claim of the '640 Patent. Wells Fargo's infringing IVR system has not been manufactured or authorized in any manner by the Plaintiff.

35. As a legal consequence of Wells Fargo's infringement, Plaintiff is entitled to compensation for no less than a reasonable royalty, as well as pre-judgment interest and a preliminary and permanent injunction. In the event that the Court does not exercise its equitable discretion to award a permanent injunction, then Plaintiff is entitled to a judgment that includes a sum equal to the total projected value of a compulsory license for the life of the patent at a royalty rate to be determined by a jury, discounted to present value, to compensate Plaintiff for future infringement.

36. The infringement of the '640 Patent has been willful in that Wells Fargo is fully aware of Plaintiff's rights, yet has continued to use the infringing IVR system in violation of the patent laws without a good faith basis for believing it does not infringe or the patent is invalid. This intentional refusal to respect Plaintiff's patent rights constitutes willful infringement under 35 U.S.C. §§ 284 and 285, thereby entitling Plaintiff to treble damages and attorneys' fees.

VI. THIRD COUNT FOR INFRINGEMENT
OF UNITED STATES PATENT NO. 7,050,977

37. Plaintiff hereby incorporates by reference the allegations contained in paragraphs 1 through 26.

38. Plaintiff is the assignee of the U.S. Patent No. 7,050,977 ("the '977 Patent"), attached hereto as Exhibit 3, entitled "Speech-Enabled Server for Internet Website and Method". Plaintiff owns and has standing and capacity to sue and recover damages for infringement under the '977 Patent.

1 39. Wells Fargo has violated Plaintiff's patent rights by operating an IVR
2 system covered by at least one claim of the '977 Patent. Wells Fargo's infringing
3 IVR system has not been manufactured or authorized in any manner by the
4 Plaintiff.

5 40. As a legal consequence of Wells Fargo's infringement, Plaintiff is
6 entitled to compensation for no less than a reasonable royalty, as well as pre-
7 judgment interest and a preliminary and permanent injunction. In the event that the
8 Court does not exercise its equitable discretion to award a permanent injunction,
9 then Plaintiff is entitled to a judgment that includes a sum equal to the total
10 projected value of a compulsory license for the life of the patent at a royalty rate to
11 be determined by a jury, discounted to present value, to compensate Plaintiff for
12 future infringement.

13 41. The infringement of the '977 Patent has been willful in that Wells
14 Fargo is fully aware of Plaintiff's rights, yet has continued to use the infringing
15 IVR system in violation of the patent laws without a good faith basis for believing
16 it does not infringe or the patent is invalid. This intentional refusal to respect
17 Plaintiff's patent rights constitutes willful infringement under 35 U.S.C. §§ 284 and
18 285, thereby entitling Plaintiff to treble damages and attorneys' fees.

19 **VII. FOURTH COUNT FOR INFRINGEMENT**
20 **OF UNITED STATES PATENT NO. 7,277,854**

21 42. Plaintiff hereby incorporates by reference the allegations contained in
22 paragraphs 1 through 26.

23 43. Plaintiff is the assignee of the U.S. Patent No. 7,277,854 ("the '854
24 Patent"), attached hereto as Exhibit 4, entitled "Speech Recognition System
25 Interactive Agent". Plaintiff owns and has standing and capacity to sue and recover
26 damages for infringement under the '854 Patent.

1 44. Wells Fargo has violated Plaintiff's patent rights by operating an IVR
2 system covered by at least one claim of the '854 Patent. Wells Fargo's infringing
3 IVR system has not been manufactured or authorized in any manner by the
4 Plaintiff.

5 45. As a legal consequence of Wells Fargo's infringement, Plaintiff is
6 entitled to compensation for no less than a reasonable royalty, as well as pre-
7 judgment interest and a preliminary and permanent injunction. In the event that the
8 Court does not exercise its equitable discretion to award a permanent injunction,
9 then Plaintiff is entitled to a judgment that includes a sum equal to the total
10 projected value of a compulsory license for the life of the patent at a royalty rate to
11 be determined by a jury, discounted to present value, to compensate Plaintiff for
12 future infringement.

13 46. The infringement of the '854 Patent has been willful in that Wells
14 Fargo is fully aware of Plaintiff's rights, yet has continued to use the infringing
15 IVR system in violation of the patent laws without a good faith basis for believing
16 it does not infringe or the patent is invalid. This intentional refusal to respect
17 Plaintiff's patent rights constitutes willful infringement under 35 U.S.C. §§ 284 and
18 285, thereby entitling Plaintiff to treble damages and attorneys' fees.

19 **VIII. DEMAND FOR JURY TRIAL**

20 47. Plaintiff hereby exercises its right to a jury trial under the Seventh
21 Amendment to the United States Constitution, and pursuant to Fed. R. Civ. Proc.,
22 Rule 38, demands a jury trial in accordance therewith.

23 **IX. PRAYER FOR RELIEF**

24 WHEREFORE, Plaintiff prays for:

25 a. A preliminary injunction, barring Wells Fargo and all of its agents,
26 officers, attorneys, successors, and assigns from manufacturing, importing or using
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1 any system (or components thereof) that infringes upon the '846, the '640, the '977
2 and the '854 Patents;

3 b. A permanent injunction, barring Wells Fargo and all of its agents,
4 officers, successors and assigns from manufacturing, importing or using any system
5 (or components thereof) that infringes upon the '846, the '640, the '977 and the
6 '854 Patents;

7 c. That Wells Fargo be required to account to Plaintiff for all savings and
8 revenues realized by Wells Fargo and any subsidiary and any partner company of
9 Wells Fargo from the use of IVR systems infringing the '846, the '640, the '977
10 and the '854 Patents;

11 d. A judgment for compensatory damages, not less than reasonable
12 royalty, suffered as a result of the patent infringement as well as prejudgment
13 interest;

14 e. A judgment including a sum equal to a the total projected value of a
15 compulsory license for the life of the patents, discounted to present value, to
16 compensate Plaintiff for future infringement in the event that a permanent
17 injunction is not awarded;

18 f. Treble damages and attorneys' fees pursuant to 35 U.S.C. §§ 284 and
19 285 for willful infringement of the '846, the '640, the '977 and the '854 Patents by
20 Wells Fargo; and,

21 g. Any and all other relief that the Court deems proper.

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Respectfully submitted,
TROJAN LAW OFFICES
by

Dated: September 16, 2008

/s/ R. Joseph Trojan

R. Joseph Trojan
Attorney for Plaintiff,
PHOENIX SOLUTIONS, INC.

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